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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,288	01/14/2002	Arnold Wilkie	0818.0125C	5437

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EXAMINER	
MAYES, MELVIN C	
ART UNIT	**PAPER NUMBER**
1734	

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/043,288	WILKIE ET AL.	
	Examiner	Art Unit	
	Melvin Curtis Mayes	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7 and 9-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7 and 9-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

(1)

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

(2)

Claims 7 and 9-12 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the polymer streams maintained at different temperatures during delivery to the spinneret, does not reasonably provide enablement for polymer streams independently maintained at different temperatures at least prior to delivery to the spinneret orifices. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

According to the specification, the polymer streams are maintained at different temperatures within the spin beam assembly during delivery of the streams to the spinneret (pg. 4, lines 13-15) or to the spin pack which includes inlet channels for receiving streams from the spin beam assembly and a spinneret with spinneret orifices, the term "spinneret" referring to the lower most portion of the spin pack (pg. 9, lines 22-28). The specification does not support the polymer streams independently maintained at different temperatures "at least prior to delivery to the spinneret orifices," which encompasses the polymer streams independently maintained at different temperatures only within the spin pack or spinneret prior to delivery to

the spinneret orifices, not necessarily within the spin beam assembly as set forth in the specification.

Claim Rejections - 35 USC § 103

(3)

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(4)

Claims 7 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gues et al. 5,814,349 in view of Berger 6,103,181, further in view of Wust, Jr. 5,411,693 and Herwegh et al. 5,700,491.

Gues et al. disclose a method of making a spun-bond web comprising: extruding thermoplastic strands from a spinneret; blowing process air from a blower onto the curtain of strands to cool the strands to form thermoplastic filaments (quenching by a gas-stream in a quenching chamber); stretching the filaments in a vertical drawing channel by the process air (drawing in a drawing chamber); and depositing the filaments onto a continuous endless belt (forming surface) to form a spun-bond web of interentangled filaments (non-woven fibrous web). The apparatus is a closed system in which an enclosed environment is maintained between the spinneret, quenching chamber and drawing chamber (col. 1-5). Gues et al. do not disclose delivering a plurality of polymer streams from a spin beam assembly to the spinneret, at least two of the streams including different polymer components and the polymer streams segregated

and independently maintained at different temperatures in the spin beam assembly prior to delivery to the spinneret and thus to the spinneret orifices.

Berger teaches that by producing a mixed fiber web of substantially complete uniformity, improved functional properties can be afforded in a variety of fibrous products. Berger teaches that for making a web of monocomponent fibers of different polymers or a web of multiple-component fibers, different polymer material from independent sources are fed through mutually separated distribution paths of mounting blocks and distribution plates to an array of spinneret orifices (spin pack assembly) to produce a uniform blend of fibers of differing characteristics. For making bicomponent fibers core-forming polymer and sheath-forming polymer are fed from independent sources through melt pumps to enter the die assembly. For making a homogenous web of two different polymers, two independent sources of polymer material are provided and fed through the die assembly, the polymer fed into the die assembly under different speeds so that the speed of extruding of the polymer material through alternate spinneret opening is different so as to be attenuated differently (col. 4, lines 32-54, col. 6, lines 18-47, col. 10, line 34 – col. 16, line 64).

Wust, Jr. teaches that in making multi-component fibers by spinning through a spinneret, first and second polymeric components are fed at first and second melt temperature through separate inlet ports, respectively, to the spin pack assembly for combining and extruding through spinning holes at the bottom surface of the spinnerette (col. 3, lines 32-46, col. 12, lines).

Herwegh et al. teach that the melt lines for advancing molten plastic in a spin beam to a spinneret unit for spinning a plurality of synthetic filament yarns are heated by a heating medium (col. 3, lines 5-8).

It would have been obvious to one of ordinary skill in the art to have modified the method of Gues et al. for making a spun-bond web by delivering to the spinneret, different polymers, as taught by Berger, to make a mixed fiber web of substantially complete uniformity and improved functional properties. Making a web of either bicomponent fibers or of single fibers of two different polymers by supplying different polymers to the spinneret orifices via separated distribution paths in mounting blocks and distribution plates of the die assembly (spin pack including spinnerette) would have been obvious to one of ordinary skill in the art, as taught by Berger for making a uniform mixed fiber web of improved function properties.

It would have been obvious to one of ordinary skill in the art to have further modified the method of the Gues et al. by directing the different polymers to the die assembly (spin pack including spinneret) from the melt pumps of a spin beam (spin beam assembly) via lines heated at different temperatures, as Wust, Jr. teaches that in making multi-component fibers by spinning through a spinneret, first and second polymeric components are fed at first and second melt temperature, respectively, separately to the spin pack assembly, and Herwegh teach that the melt lines for advancing molten plastic in a spin beam to a spinneret unit are heated by a heating medium. By advancing separate streams of two polymers from the melt pumps of a spin beam by melt lines heated at different temperatures to the die assembly (spin pack including spinneret), as suggested by Wust, Jr. and Herwegh et al., polymer streams of differing polymer components are delivered from a spin beam assembly to spinneret orifices and polymer streams are segregated and independently maintained at different temperatures prior to delivery the spinneret, and thus to the spinneret orifices as claimed.

Delivering the polymers to the spinneret orifices as varying flow rates, as claimed in Claim 9, would have been obvious to one of ordinary skill in the art, as taught by Berger, to extrude the polymer materials at different speeds so as to attenuate the extruded polymer materials differently.

Response to Arguments

(5)

Applicant's arguments filed April 6, 2005 have been fully considered but they are not persuasive.

Applicant argues that there is no teaching in Wust of segregating polymer components within the spin pack and independently maintaining the components at separate temperatures at least prior to delivery to the spinneret orifices and argues that Herwegh does not teach segregating polymer streams and independently maintaining at different temperatures prior to delivery.

(6)

Applicant is not claiming, nor does the present specification support, segregating polymer components within the spin pack, as argued. Wust, Jr. and Herwegh together suggest that polymer streams are fed from the spin beam to the spin pack or spinneret while heated, and if two polymers are being fed for making multi-component fibers, to feed the polymers to the spin pack separately and while heated at different temperatures. Thus the references as combined suggest delivering different polymers from a spin beam assembly to the spin pack, and thus the spinneret or spinneret orifices, while the polymers are segregated and independently maintained at different temperatures.

Conclusion

(7)

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

(8)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Melvin Curtis Mayes
Primary Examiner
Art Unit 1734

MCM
June 29, 2005